

REFERENCES CITED BY NUMERALS
(Additional references are cited in the text)

1. Hennings, H., Michael, D., Cheng, C., Steinert, P., Holbrook, K., and Yuspa, S.H. Calcium regulation of growth and differentiation of mouse epidermal cells in culture. *Cell*, 19: 245-254, 1980.
2. Yuspa, S.H., Kilkenny, A.E., Steinert, P.M., and Roop, D.R. Expression of murine epidermal differentiation markers is tightly regulated by restricted extracellular calcium concentrations in vitro. *J.Cell Biol.*, 109: 1207-1217, 1989.
3. Fuchs, E. Epidermal differentiation: the bare essentials. *J.Cell Biol.*, 111: 2807-2814, 1990.
4. Yuspa, S.H. The pathogenesis of squamous cell cancer: lessons learned from studies of skin carcinogenesis--Thirty-third G.H.A. Clowes Memorial Award Lecture. *Cancer Res.*, 54: 1178-1189, 1994.
5. Hennings, H. and Holbrook, K.A. Calcium regulation of cell-cell contact and differentiation of epidermal cells in culture. An ultrastructural study. *Exp.Cell Res.*, 143: 127-142, 1983.
6. Tennenbaum, T., Li, L., Belanger, A.J., De Luca, L.M., and Yuspa, S.H. Selective changes in laminin adhesion and $\alpha 6\beta 4$ integrin regulation are associated with the initial steps in keratinocyte maturation. *Cell Growth Differ.*, 7: 615-628, 1996.
7. Tennenbaum, T., Belanger, A.J., Quaranta, V., and Yuspa, S.H. Differential regulation of integrins and extracellular matrix binding in epidermal differentiation and squamous tumor progression. *J.Invest.Dermatol.*, 1: 157-161, 1996.

8. Nishizuka, Y. The molecular heterogeneity of PKC and its implications for cellular regulation. *Nature*, 334: 661-665, 1988.
9. Nishizuka, Y. The family of protein kinase C for signal transduction. *JAMA*, 262: 1826-1833, 1989.
10. Denning, M.F., Dlugosz, A.A., Williams, E.K., Szallasi, Z., Blumberg, P.M., and Yuspa, S.H. Specific protein kinase C isozymes mediate the induction of keratinocyte differentiation markers by calcium. *Cell Growth Differ.*, 6: 149-157, 1995.
11. Dlugosz, A.A., Pettit, G.R., and Yuspa, S.H. Involvement of Protein kinase C in Ca^{2+} -mediated differentiation on cultured primary mouse keratinocytes. *J.Invest.Dermatol.*, 94: 519-519, 1990.(Abstract)
12. Dlugosz, A.A. and Yuspa, S.H. Coordinate changes in gene expression which mark the spinous to granular cell transition in epidermis are regulated by protein kinase C. *J.Cell Biol.*, 120: 217-225, 1993.
13. Kuroki, T., Kashiwagi, M., Ishino, K., Huh, N., and Ohba, M. Adenovirus-mediated gene transfer to keratinocytes--a review. *J.Investig.Dermatol.Symp.Proc.*, 4: 153-157, 1999.
14. Rosenfeld, M.A., Siegfried, W., Yoshimura, K., Yoneyama, K., Fukayama, M., Stier, L.E., Paakko, P.K., Gi, P., Stratford-Perricaudet, M., Jallet, J., Pavirani, A., Lecocq, J.P., and Crystal, R.G. Adenovirus-mediated transfer of a recombinant $\alpha 1$ -antitrypsin gene to the lung epithelium in vivo. *Science*, 252: 431-434, 1991.
15. Setoguchi, Y., Jaffe, H.A., Danel, C., and Crystal, R.G. *Ex Vivo* and *in vivo* gene transfer to the skin using replication-deficient recombinant adenovirus vectors. *J.Invest.Dermatol.*, 102: 415-421, 1994.

16. Greenhalgh, D.A., Rothnagel, J.A., and Roop, D.R. Epidermis: An attractive target tissue for gene therapy. *J.Invest.Dermatol.*, 103: 63S-69S, 1994.
17. Miyake, S., Makimura, M., Kanegae, Y., Harada, S., Sato, Y., Takamori, K., Tokuda, C., and Saito, I. Efficient generation of recombinant adenoviruses using adenovirus DNA-terminal protein complex and a cosmid bearing the full-length virus genome. *Proc.Natl.Acad.Sci.U.S.A.*, 93: 1320-1324, 1996.
18. Dlugosz, A.A., Glick, A.B., Tennenbaum, T., Weinberg, W.C., and Yuspa, S.H. Isolation and utilization of epidermal keratinocytes for oncogene research. In: P.K. Vogt and I.M. Verma (eds.), *Methods in Enzymology*, pp. 3-20, New York: Academic Press. 1995.
19. Ohba, M., Ishino, K., Kashiwagi, M., Kawabe, S., Chida, K., Huh, N.H., and Kuroki, T. Induction of differentiation in normal human keratinocytes by adenovirus-mediated introduction of the eta and delta isoforms of protein kinase C. *Mol.Cell Biol.*, 18: 5199-5207, 1998.
20. Weinstein, M.L. Update on wound healing: a review of the literature. *Mil.Med.*, 163: 620-624, 1998.
21. Singer, A.J. and Clark, R.A. Cutaneous wound healing. *N.Engl.J.Med.*, 341: 738-746, 1999.
22. Whitby, D.J. and Ferguson, M.W. Immunohistochemical localization of growth factors in fetal wound healing. *Dev.Biol.*, 147: 207-215, 1991.
23. Kiritsy, C.P., Lynch, B., and Lynch, S.E. Role of growth factors in cutaneous wound healing: a review. *Crit.Rev.Oral Biol.Med.*, 4: 729-760, 1993.

24. Andresen, J.L., Ledet, T., and Ehlers, N. Keratocyte migration and peptide growth factors: the effect of PDGF, bFGF, EGF, IGF-I, aFGF and TGF-beta on human keratocyte migration in a collagen gel. *Curr.Eye Res.*, 16: 605-613, 1997.
25. Werner, S., Breeden, M., Hubner, G., Greenhalgh, D.G., and Longaker, M.T. Induction of keratinocyte growth factor expression is reduced and delayed during wound healing in the genetically diabetic mouse. *J.Invest.Dermatol.*, 103: 469-473, 1994.
26. Threadgill, D.W., Dlugosz, A.A., Hansen, L.A., Tennenbaum, T., Lichti, U., Yee, D., LaMantia, C., Mourton, T., Herrup, K., Harris, R.C., Barnard, J.A., Yuspa, S.H., Coffey, R.J., and Magnuson, T. Targeted disruption of mouse EGF receptor: effect of genetic background on mutant phenotype. *Science*, 269: 230-234, 1995.
27. Osada, S., Mizuno, K., Theo, T.C., Akita, Y., Suzuki, K., Kuroki, T., and Ohno, S. A phorbol ester receptor/protein kinase, nPKC_n, a new member of the protein kinase C family predominantly expressed in lung and skin. *J.Biol.Chem.*, 265: 22434-22440, 1990.
28. Chida, K., Sagara, H., Suzuki, Y., Murakami, A., Osada, S., Ohno, S., Hirosawa, K., and Kuroki, T. The η isoform of protein kinase C is localized on rough endoplasmic reticulum. *Mol.Cell Biol.*, 14: 3782-3790, 1994.
29. Knighton, D.R. and Fiegel, V.D. Growth factors and comprehensive surgical care of diabetic wounds. *Curr.Opin.Gen.Surg.*, :32-9: 32-39, 1993.
30. Shaw, J.E. and Boulton, A.J. The pathogenesis of diabetic foot problems: an overview. *Diabetes*, 46 Suppl 2:S58-61: S58-S61 1997.
31. Coghlan, M.P., Pillay, T.S., Tavaré, J.M., and Siddle, K. Site-specific anti-phosphopeptide antibodies: use in assessing insulin receptor serine/threonine

phosphorylation state and identification of serine-1327 as a novel site of phorbol ester-induced phosphorylation. *Biochem.J.*, 303: 893-899, 1994.

32. Grunfeld, C. Diabetic foot ulcers: etiology, treatment, and prevention. *Adv.Intern.Med.*, 37:103-32: 103-132, 1992.

33. Reiber, G.E., Lipsky, B.A., and Gibbons, G.W. The burden of diabetic foot ulcers. *Am.J.Surg.*, 176: 5S-10S, 1998.

34. Wertheimer, E., Trebicz, M., Eldar, T., Gartsbein, M., Nofeh-Mozes, S., and Tennenbaum, T. Differential Roles of Insulin Receptor and Insulin-Like Growth Factor-1 Receptor in Differentiation of Murine Skin Keratinocytes. *J.Invest.Dermatol.*, *in press*: 2000.

35. Gschwendt, M. Protein kinase C delta. *Eur.J.Biochem.*, 259: 555-564, 1999.

36. Bajou, K., Noel, A., Gerard, R.D., Masson, V., Brunner, N., Holst-Hansen, C., Skobe, M., Fusenig, N.E., Carmeliet, P., Collen, D., and Foidart, J.M. Absence of host plasminogen activator inhibitor 1 prevents cancer invasion and vascularization. *Nat.Med.*, 4: 923-928, 1998.

37. Alessenko, A., Khan, W.A., Wetsel, W.C., and Hannun, Y.A. Selective changes in protein kinase C isoenzymes in rat liver nuclei during liver regeneration. *Biochem.Biophys.Res.Comm.*, 182: 1333-1339, 1992.

38. Soltoff, S.P. and Toker, A. Carbachol, substance P, and phorbol ester promote the tyrosine phosphorylation of protein kinase C δ in salivary gland epithelial cells. *J.Biol.Chem.*, 270: 13490-13495, 1995.

39. Mischak, H., Pierce, J.H., Goodnight, J., Kazanietz, M.G., Blumberg, P.M., and Mushinski, J.F. Phorbol ester-induced myeloid differentiation is mediated

by protein kinase C- α and - δ and not by protein kinase C- β II, - ϵ , -zeta and eta. *J.Biol.Chem.*, 268: 20110-20115, 1993.

40. Sun, Q., Tsutsumi, K., Kelleher, M.B., Pater, A., and Pater, M.M. Squamous metaplasia of normal and carcinoma in situ of HPV 16-immortalized human endocervical cells. *Cancer Res.*, 52: 4254-4260, 1992.

41. Mischak, H., Goodnight, J., Kolch, W., Martiny-Baron, G., Schaechtle, C., Kazanietz, M.G., Blumberg, P.M., Pierce, J.H., and Mushinski, J.F. over-expression of protein kinase C- δ and - ϵ in NIH 3T3 cells induces opposite effects of growth, morphology, anchorage dependence, and tumorigenicity. *J.Biol.Chem.*, 268: 6090-6096, 1993.

42. Braiman, L., Alt, A., Kuroki, T., Ohba, M., Bak, A., Tennenbaum, T., and Sampson, S.R. Protein kinase Cdelta mediates insulin-induced glucose transport in primary cultures of rat skeletal muscle. *Mol.Endocrinol.*, 13: 2002-2012, 1999.

43. Braiman, L., Sheffi-Friedman, L., Bak, A., Tennenbaum, T., and Sampson, S.R. Tyrosine phosphorylation of specific protein kinase C isoenzymes participates in insulin stimulation of glucose transport in primary cultures of rat skeletal muscle. *Diabetes*, 48: 1922-1929, 1999.

44. Bandyopadhyay, G., Standaert, M.L., Kikkawa, U., Ono, Y., Moscat, J., and Farese, R.V. Effects of transiently expressed atypical (zeta, lambda), conventional (alpha, beta) and novel (delta, epsilon) protein kinase C isoforms on insulin-stimulated translocation of epitope-tagged GLUT4 glucose transporters in rat adipocytes: specific interchangeable effects of protein kinases C-zeta and C-lambda. *Biochem.J.*, 337: 461-470, 1999.

45. Formisano, P., Oriente, F., Miele, C., Caruso, M., Auricchio, R., Vigliotta, G., Condorelli, G., and Beguinot, F. In NIH-3T3 fibroblasts, insulin

receptor interaction with specific protein kinase C isoforms controls receptor intracellular routing. *J.Biol.Chem.*, 273: 13197-13202, 1998.

46. Wang, Q.J., Bhattacharyya, D., Garfield, S., Nacro, K., Marquez, V.E., and Blumberg, P.M. Differential localization of protein kinase C delta by phorbol esters and related compounds using a fusion protein with green fluorescent protein. *J.Biol.Chem.*, 274: 37233-37239, 1999.